

ARMY RDT&E BUDGET ITEM JUSTIFICATION (R2 Exhibit)

February 2004

BUDGET ACTIVITY

5 - System Development and Demonstration

PE NUMBER AND TITLE

0604808A - Landmine Warfare/Barrier - Eng Dev

| COST (In Thousands) | FY 2003 Actual | FY 2004 Estimate | FY 2005 Estimate | FY 2006 Estimate | FY 2007 Estimate | FY 2008 Estimate | FY 2009 Estimate | Cost to Complete | Total Cost |
|--|-------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|------------|
| Total Program Element (PE) Cost | 125024 | 96187 | 51045 | 71230 | 82360 | 93513 | 102194 | Continuing | Continuing |
| 016 CLOSE COMBAT CAPABILITIES ENG DEV | 36953 | 9398 | 29109 | 42430 | 53632 | 45887 | 35891 | Continuing | Continuing |
| 415 MINE NEUTRAL/DETECTION | 52852 | 33356 | 14688 | 28800 | 28728 | 47626 | 66303 | Continuing | Continuing |
| 434 ANTI-PERSONNEL LANDMINE ALTERNATIVES (NSD) | 27042 | 22289 | 7248 | 0 | 0 | 0 | 0 | 0 | 93781 |
| 443 APL-A (MIXED SYSTEMS) | 8177 | 31144 | 0 | 0 | 0 | 0 | 0 | 0 | 75738 |

A. Mission Description and Budget Item Justification: This program element (PE) provides for System Development and Demonstration of mine, counter mine, demolition, non-lethal, and shoulder launched munitions/systems. This PE implements U.S. Landmine policy as outlined in Presidential Decision Directive 64 (June 1998) to develop alternatives to all landmine systems. The PE also provides for development of grenades, munition simulators, and pyrotechnic devices/systems. The Close Combat Capabilities Engineering Development, provides for increased tactical effectiveness and responsiveness of landmines, with development of upgrades for the Volcano Dispenser, as well as the development of the Intelligent Munition System (IMS), an FCS Core system. The program also provides for a variety of demolition efforts to include development of Flexible Linear Shaped Charge, Remote Shock Tube Initiator, Magnetic Inductive Urban OPS Structure Remote Initiator, Insensitive Initiator, and Advanced Cratering. Project Mine Neutralization/Detection Engineering Development provides for development of the Airborne Standoff Minefield Detection System (ASTAMIDS), Ground Standoff Mine Detection System (GSTAMIDS), Handheld Standoff Mine Detection System (HSTAMIDS), and Explosive Standoff Minefield Clearer (ESMC). Anti-Personnel Landmine Alternatives (APLA) Track I provides for development of the Spider alternative systems for Non Self-Destruct (NSD) Anti-Personnel Landmines (APLs).

These systems support the Stryker Brigade Combat Team (SBCT) and Future Force transition path of the Transformation Campaign Plan (TCP). IMS is an FCS Core Program; ASTAMIDS and GSTAMIDS are FCS Complementary Programs.

ARMY RDT&E BUDGET ITEM JUSTIFICATION (R2 Exhibit)**February 2004****BUDGET ACTIVITY****5 - System Development and Demonstration****PE NUMBER AND TITLE****0604808A - Landmine Warfare/Barrier - Eng Dev****B. Program Change Summary**

| | FY 2003 | FY 2004 | FY 2005 |
|---------------------------------------|---------|---------|---------|
| Previous President's Budget (FY 2004) | 123314 | 90396 | 90126 |
| Current Budget (FY 2005 PB) | 125024 | 96187 | 51045 |
| Total Adjustments | 1710 | 5791 | -39081 |
| Congressional program reductions | | -914 | |
| Congressional rescissions | | | |
| Congressional increases | | 6800 | |
| Reprogrammings | 1710 | -95 | |
| SBIR/STTR Transfer | | | |
| Adjustments to Budget Years | | | -39081 |

FY03 Zero Sum Moves (Between Projects within this PE)

 \$22.4M from D443 to D016 to initiate development of the Intelligent Munitions System (IMS)

 \$ 6.1M from D016 to D415 for Mongoose development (\$4.2M) and AROC II assessment (\$1.8M)

FY04: + \$6.8M increase for D016 for Magneto Inductance effort.

FY05 +\$11.9M D016 Reprogrammed from 643619/D005 to align IMS in acquisition phase (SDD) with the overall FCS program.

 +\$ 1.5M D606 Reprogrammed from E81400 - production to RDTE on Mongoose program

 -\$67.1M D443; +\$17.7M D016 - Allows for the consolidation of TRACK III development with the Intelligent Munitions System (IMS) to achieve future force requirements. The Army shall ensure that the budget complies with Administration policy and shall budget appropriate resources for landmine alternatives in the future.

Remaining funds (\$35.9M) realigned to support higher priority requirements

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0604808A - Landmine Warfare/Barrier - Eng Dev

PROJECT

016

| COST (In Thousands) | FY 2003 Actual | FY 2004 Estimate | FY 2005 Estimate | FY 2006 Estimate | FY 2007 Estimate | FY 2008 Estimate | FY 2009 Estimate | Cost to Complete | Total Cost |
|---------------------------------------|-------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|------------|
| 016 CLOSE COMBAT CAPABILITIES ENG DEV | 36953 | 9398 | 29109 | 42430 | 53632 | 45887 | 35891 | Continuing | Continuing |

A. Mission Description and Budget Item Justification: The Intelligent Munitions System is one of the 18 core programs that make up the Future Combat Systems(FCS) Family of Systems. IMS is an integrated system of effects (lethal, non-lethal, anti-vehicle, anti-personnel, demolitions), software, sensors/seekers, and communications that may be emplaced by multiple means and is capable of unattended employment for the detection, classification, identification, tracking and engagement of selected targets in accordance with the commander's intent. IMS will enhance the effectiveness of the Objective Force by providing networked munitions and real time targeting data capabilities while eliminating the need for overwatch forces. The Intelligent Munitions System is an FCS unit of action spiral forward funded program. The APLA TRACK III Mixed System provided alternatives to anti-personnel submunitions used in mixed anti-tank landmine systems and possibly the entire mixed landmine system. IMS forms the backbone of future controllable and integrated mine systems that will shape development of our landmine alternatives. The requirement for TRACK III will be fulfilled as part of the spiral development of the IMS.

These Systems support the Stryker Brigade Combat Team (SBCT) and Future Forces of the Transformation Campaign Plan (TCP).

In prior years, this project provided for Systems Development and Demonstration of mine, demolition, non-lethal, and shoulder launched munitions/systems. Also provides for development of grenades, munition simulators, and pyrotechnic devices. Includes the upgrade to the Volcano Dispenser Control Unit (DCU) and the Volcano modularization in support of the Stryker Brigade Combat Team (SBCT). Also includes a variety of Demolition devices to include: Flexible Linear Shaped Charge, Remote Shock Tube Initiator, Magnetic Inductive Remote Activation Munition System (MI-RAMS), Special Forces Demolition Kit for Urban OPS, Structure Remote Initiator, Insensitive Initiator, and Advanced Cratering.

| <u>Accomplishments/Planned Program</u> | FY 2003 | FY 2004 | FY 2005 |
|--|---------|---------|---------|
| Initiate IMS Development. | 20000 | 0 | 0 |
| Continue IMS concept development - component and system level. | 0 | 0 | 13394 |
| Conduct IMS Modeling, Simulation and Analysis. | 2400 | 0 | 2715 |
| Conduct IMS FCS integration testing. | 320 | 0 | 2000 |
| Conduct contractor demonstration testing. | 0 | 0 | 11000 |
| Complete and document design/development of Volcano DCU upgrades. | 4148 | 900 | 0 |
| Continue test planning and management for Volcano DCU. | 1759 | 0 | 0 |
| Management of orderly termination plan for Volcano light and DCU Upgrades. | 0 | 1425 | 0 |
| Volcano DCU Engineering testing. | 644 | 0 | 0 |

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BUDGET ACTIVITY

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PE NUMBER AND TITLE

0604808A - Landmine Warfare/Barrier - Eng Dev

PROJECT

016

Accomplishments/Planned Program (continued)

| | FY 2003 | FY 2004 | FY 2005 |
|---|--------------|-------------|--------------|
| Design/Develop Volcano Light. | 900 | 0 | 0 |
| Volcano Light Test planning and management. | 368 | 0 | 0 |
| Develop Magneto Inductive Remote Activation Munition System (MI-RAMS) Shock Tube Initiator. | 5000 | 6800 | 0 |
| Develop Rapid Wall Breacher Kit. | 400 | 0 | 0 |
| Develop SDK Urban OPS Supplement. | 1014 | 0 | 0 |
| Small Business Innovative Research/Small Business Technology Transfer Programs. | 0 | 273 | 0 |
| Totals | 36953 | 9398 | 29109 |

B. Other Program Funding Summary

| | FY 2003 | FY 2004 | FY 2005 | FY 2006 | FY 2007 | FY 2008 | FY 2009 | To Compl | Total Cost |
|--|---------|---------|---------|---------|---------|---------|---------|----------|------------|
| 643619 / D005 Close Combat Capabilities - Advanced Development (IMS) | 0 | 27026 | 0 | 0 | 0 | 0 | 0 | 0 | 27026 |
| G39100, Dispenser, Mine M139 | 0 | 5231 | 0 | 0 | 0 | 0 | 0 | 0 | 5231 |

C. Acquisition Strategy:IMS - Competitively awarded two cost plus incentive fee, incrementally funded Technology Development (TD) phase contracts. Will downselect to one of the TD phase contractors for System Development and Demonstration (SDD) phase and award a cost plus incentive fee, incrementally funded contract for SDD and low rate initial production. The IMS is being developed as an evolutionary acquisition program that will field a capability that meets national landmine policy and will spiral into meeting the FCS Full Operational Capability.

MI-RAMS - Award a sole source contract to Magneto Inductive Systems LTD for SDD

MI - Shock Tube Initiator - Award a Sole Source contract to Ratheon Technical Systems of Indianapolis IN

| ARMY RDT&E COST ANALYSIS(R3) | | | | | | | | | February 2004 | | | |
|--|------------------------|---|----------------|--------------|---|--------------|--------------------|--------------|--------------------|------------------|------------|--------------------------|
| BUDGET ACTIVITY | | | | | PE NUMBER AND TITLE | | | | | PROJECT | | |
| 5 - System Development and Demonstration | | | | | 0604808A - Landmine Warfare/Barrier - Eng Dev | | | | | 016 | | |
| I. Product Development | Contract Method & Type | Performing Activity & Location | Total PYs Cost | FY 2003 Cost | FY 2003 Award Date | FY 2004 Cost | FY 2004 Award Date | FY 2005 Cost | FY 2005 Award Date | Cost To Complete | Total Cost | Target Value of Contract |
| a . Volcano DCU Upgrade- SDD Contract | C-CFF | Alliant Tech Systems, Plymouth MN | 1230 | 4118 | 1-2Q | 900 | | 0 | | 0 | 6248 | 6278 |
| b . VolcanoI Light-SDD Contract | C-CFF | Alliant Tech Systems, Plymouth MN | 0 | 900 | 4Q | 0 | | 0 | | 0 | 900 | 900 |
| c . Magneto Inductive Shock Tube Initiator | SS - CPIF | Ratheon Technical Services, Indianapolis IN | 0 | 0 | | 800 | 2Q | 0 | | 0 | 800 | 0 |
| d . Magneto Inductive - RAMS | C-CPIF | Coastal System Station, Panama City FL | 0 | 3710 | 4Q | 4073 | 2Q | 0 | | 0 | 7783 | 3710 |
| e . Wall Breacher | C-CPIF | Ens Bickford, Simsbury CN | 0 | 400 | 4Q | 0 | | 0 | | 0 | 400 | 0 |
| f . Urban OPS | FP | Amenn and Whitney (GSA) | 0 | 404 | 4Q | 0 | | 0 | | 0 | 404 | 0 |
| g . IMS Technology development | C-CPIF | GDAIS, Bloomington, MN | 0 | 9000 | 3Q | 0 | | 11000 | 1Q | 0 | 20000 | 0 |
| h . IMS Technology development | C-CPIF | Textron System Corp., Wilmington, MA | 0 | 9000 | 3Q | 0 | | 11394 | | 0 | 20394 | 0 |
| | | | | | | | | | | | | |
| Subtotal: | | | 1230 | 27532 | | 5773 | | 22394 | | 0 | 56929 | 10888 |

| ARMY RDT&E COST ANALYSIS(R3) | | | | | | | | | February 2004 | | | |
|--|------------------------|------------------------------------|----------------|--------------|---|--------------|--------------------|--------------|--------------------|-----------------------|------------|--------------------------|
| BUDGET ACTIVITY 5 - System Development and Demonstration | | | | | PE NUMBER AND TITLE 0604808A - Landmine Warfare/Barrier - Eng Dev | | | | | PROJECT 016 | | |
| II. Support Cost | Contract Method & Type | Performing Activity & Location | Total PYs Cost | FY 2003 Cost | FY 2003 Award Date | FY 2004 Cost | FY 2004 Award Date | FY 2005 Cost | FY 2005 Award Date | Cost To Complete | Total Cost | Target Value of Contract |
| a . Engineering Support Volcano Light | MIPR | TACOM/ARDEC, Picatinny Arsenal, NJ | 0 | 267 | 3Q | 394 | 1Q | 0 | | 0 | 661 | 534 |
| b . Engineering Support Volcano DCU | MIPR | TACOM/ARDEC, Picatinny Arsenal, NJ | 100 | 974 | 1Q | 351 | 2Q | 0 | | 0 | 1425 | 1574 |
| c . Volcano DCU Task Order | MIPR | Various | 0 | 277 | 2-4Q | 200 | 2Q | 0 | | 0 | 477 | 477 |
| d . Magneto Induction - RAMS | MIPR | Various | 0 | 1715 | 2-4Q | 1900 | 2Q | 0 | | 0 | 3615 | 0 |
| e . Urban OPS | MIPR | TACOM/ARDEC, Picatinny Arsenal, NJ | 0 | 530 | 2-4Q | 0 | | 0 | | 0 | 530 | 0 |
| f . IMS Engineering Support | MIPR | TACOM/ARDEC Picatinny Arsenal, NJ | 0 | 2000 | 3-4Q | 0 | | 3000 | 1Q | 0 | 5000 | 0 |
| g . IMS | MIPR | CECOM, Fort Monmouth, NJ | 0 | 600 | 3-4Q | 0 | | 900 | 1Q | 0 | 1500 | 0 |
| h . IMS Engineering Support | MIPR | Various | 0 | 300 | 3-4Q | 0 | | 1000 | 1Q | 0 | 1300 | 0 |
| | | | | | | | | | | | | |
| Subtotal: | | | 100 | 6663 | | 2845 | | 4900 | | 0 | 14508 | 2585 |
| | | | | | | | | | | | | |

| ARMY RDT&E COST ANALYSIS(R3) | | | | | | | | | February 2004 | | | |
|--|------------------------|--------------------------------|----------------|--------------|---|--------------|--------------------|--------------|--------------------|-----------------------|------------|--------------------------|
| BUDGET ACTIVITY 5 - System Development and Demonstration | | | | | PE NUMBER AND TITLE 0604808A - Landmine Warfare/Barrier - Eng Dev | | | | | PROJECT 016 | | |
| III. Test and Evaluation | Contract Method & Type | Performing Activity & Location | Total PYs Cost | FY 2003 Cost | FY 2003 Award Date | FY 2004 Cost | FY 2004 Award Date | FY 2005 Cost | FY 2005 Award Date | Cost To Complete | Total Cost | Target Value of Contract |
| a . Volcano Light | MIPR | ATEC, MD | 0 | 0 | | 0 | 2Q | 0 | | 0 | 0 | 330 |
| b . Volcano- DCU | MIPR | ATEC, APG, MD | 0 | 674 | 2Q | 0 | 2Q | 0 | | 0 | 674 | 794 |
| c . Magneto Induction - RAMS | MIPR | DTC, Aberdeen, MD | 0 | 30 | 3Q | 30 | 2Q | 0 | | 0 | 60 | 0 |
| d . Urban OPS | MIPR | ATEC, APG, MD | 0 | 130 | 3Q | 0 | | 0 | | 0 | 130 | 0 |
| e . IMS | MIPR | AMSAA, APG, MD | 0 | 320 | 3Q | 0 | | 215 | 1Q | 0 | 535 | 0 |
| f . IMS | MIPR | ATEC, APG, MD | 0 | 0 | | 0 | | 1000 | 1Q | 0 | 1000 | 0 |
| | | | | | | | | | | | | |
| Subtotal: | | | 0 | 1154 | | 30 | | 1215 | | 0 | 2399 | 1124 |

| ARMY RDT&E COST ANALYSIS(R3) | | | | | | | | | February 2004 | | | |
|--|------------------------|--------------------------------|----------------|--------------|---|--------------|--------------------|--------------|--------------------|-----------------------|------------|--------------------------|
| BUDGET ACTIVITY 5 - System Development and Demonstration | | | | | PE NUMBER AND TITLE 0604808A - Landmine Warfare/Barrier - Eng Dev | | | | | PROJECT 016 | | |
| IV. Management Services | Contract Method & Type | Performing Activity & Location | Total PYs Cost | FY 2003 Cost | FY 2003 Award Date | FY 2004 Cost | FY 2004 Award Date | FY 2005 Cost | FY 2005 Award Date | Cost To Complete | Total Cost | Target Value of Contract |
| a . Volcano Light | In-House | PM CCS, Picatinny Arsenal, NJ | 0 | 101 | 4Q | 230 | 1Q | 0 | | 0 | 331 | 331 |
| b . Volcano DCU | In-House | PM CCS, Picatinny Arsenal, NJ | 0 | 412 | 1Q | 250 | | 0 | | 0 | 662 | 562 |
| c . Magneto Induction - RAMS | In-House | PM CCS, Picatinny Arsenal, NJ | 0 | 165 | 2-4Q | 270 | 2Q | 0 | | 0 | 435 | 165 |
| d . Wall Breacher | In-House | PM CCS, Picatinny Arsenal, NJ | 0 | 30 | 3-4Q | 0 | | 0 | | 0 | 30 | 30 |
| e . IMS | In-House | PM CCS, Picatinny Arsenal, NJ | 0 | 896 | 3-4Q | 0 | | 600 | 1Q | 0 | 1496 | 0 |
| | | | | | | | | | | | | |
| Subtotal: | | | 0 | 1604 | | 750 | | 600 | | 0 | 2954 | 1088 |
| | | | | | | | | | | | | |
| Project Total Cost: | | | 1330 | 36953 | | 9398 | | 29109 | | 0 | 76790 | 15685 |
| | | | | | | | | | | | | |

| Schedule Detail (R4a Exhibit) | | | | | | February 2004 | |
|---|----------------|----------------|---|----------------|----------------|-----------------------|----------------|
| BUDGET ACTIVITY 5 - System Development and Demonstration | | | PE NUMBER AND TITLE 0604808A - Landmine Warfare/Barrier - Eng Dev | | | PROJECT 016 | |
| <u>Schedule Detail</u> | <u>FY 2003</u> | <u>FY 2004</u> | <u>FY 2005</u> | <u>FY 2006</u> | <u>FY 2007</u> | <u>FY 2008</u> | <u>FY 2009</u> |
| Volcano Modular Upgrade - ECP contract awarded | 2Q | | | | | | |
| Volcano Modular Upgrade - Contract Award | 2Q | | | | | | |
| Magneto Inductive Remote Activation Munition System (MI-RAMS) development | | 1-4Q | | | | | |
| MI-RAMS Milestone B | 4Q | | | | | | |
| MI-RAMS Preliminary Design Review | | 4Q | | | | | |
| Rapid Wall Breaching Kit - MS B | 4Q | | | | | | |
| SDK Urban OPS Suppliment - MS B | | 2Q | | | | | |
| IMS Effects and Trade Study | 2Q | | | | | | |
| IMS Contracty or Testing | | | 4Q | | | | |
| IMS Prototype Assessment Test | | | 4Q | 1Q | | | |
| IMS Milestone B | | | | 2Q | | | |
| IMS SDD Contract Review | | | | 3Q | | | |
| IMS SDD System Requirements Review | | | | | 1Q | | |
| IMS Critical Design Review | | | | | | | 2Q |

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PE NUMBER AND TITLE

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PROJECT

415

| COST (In Thousands) | FY 2003 Actual | FY 2004 Estimate | FY 2005 Estimate | FY 2006 Estimate | FY 2007 Estimate | FY 2008 Estimate | FY 2009 Estimate | Cost to Complete | Total Cost |
|----------------------------|-------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|------------|
| 415 MINE NEUTRAL/DETECTION | 52852 | 33356 | 14688 | 28800 | 28728 | 47626 | 66303 | Continuing | Continuing |

A. Mission Description and Budget Item Justification: This project provides System Development and Demonstration (SDD) for the Airborne Standoff Minefield Detection System (ASTAMIDS). The ASTAMIDS uses an Electro-Optic/Infrared (EO/IR) sensor mounted on a Future Combat System Unit of Action Unmanned Aerial Vehicle to detect and locate minefields and obstacles that are impediments to maneuver forces. ASTAMIDS can be used in tactical operations in real time, day and night, to detect surface emplaced and recently buried minefields and obstacles. This System is a Future Combat System Increment I Complementary system

Handheld Stand-off Mine Detection System (HSTAMIDS) is a handheld multi-sensor detector that combines an advanced metal detector with a special purpose Ground Penetrating Radar (GPR) coupled to an advanced signal processor and software algorithms. It provides for enhanced detection capabilities against non-metallic mines and reduces incidences of false alarms in highly cluttered metal environments.

Ground Standoff Mine Detection System Future Combat Systems (GSTAMIDS FCS) With the advent of the Army's Future Force Transformation, the GSTAMIDS Program has been restructured to meet the countermining requirements for the FCS. The April 2003 Joint Requirements Oversight Council (JROC) approved the FCS Operational Requirements Document (ORD) which includes countermining requirements. The GSTAMIDS FCS will provide the Unit of Action (UA) a capability that can be used for mine detection, mine and lane marking, mine neutralization and interfaces with FCS host platform(s) and Command, Control, Communications, and Computers, Intelligence, Surveillance, and Reconnaissance (C4ISR) reporting during on-route countermining operations. This System is a Future Combat System Increment I Complementary system

Explosive Standoff Minefield Clearer (Mongoose) is a rocket deployed array of shaped charge munitions, launched across minefields and command detonated, to provide a high confidence cleared lane for the passage of mounted troops. Mongoose will defeat all defined threat mines from a stand-off position including mines with countermeasures to current countermining systems. Mongoose is a Stryker Brigade System & a potential FCS system.

| Accomplishments/Planned Program | FY 2003 | FY 2004 | FY 2005 |
|--|----------------|----------------|----------------|
| Conduct GSTAMIDS Block 0 Government Testing. | 3709 | 0 | 0 |
| Complete GSTAMIDS Block 0 Contractor Testing. | 4407 | 0 | 0 |
| Complete GSTAMIDS Block 0 System Integration. | 700 | 0 | 0 |
| Conduct Source Selection and award GSTAMIDS FCS System Development and Demonstration Contract. | 0 | 1120 | 0 |
| Initiate GSTAMIDS FCS SDD contract. | 0 | 16886 | 13075 |

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PROJECT

415**Accomplishments/Planned Program (continued)**

| | FY 2003 | FY 2004 | FY 2005 |
|---|--------------|--------------|--------------|
| ESMC BCT design and validate insensitive munition and rocket. | 16138 | 4000 | 0 |
| Completed ESMC (Mongoose) BCT preliminary design. | 4200 | 1000 | 0 |
| Fabricate ESMC prototypes (14 reloads, 5 trailers) for productions qualification testing. | 8548 | 6000 | 1613 |
| Contractor/Government testing of ESMC. | 2525 | 2000 | 0 |
| Develop ESMC Manufacturing Processes. | 700 | 1434 | 0 |
| Fabrication of 22 HSTAMIDS Prototypes and conduct DT/OT testing. | 6300 | 0 | 0 |
| Prepare documentation, conduct MS C, and prepare procurement package for HSTAMIDS. | 927 | 0 | 0 |
| Support to PEO Solider for Rapid Equipping Force. | 2848 | 0 | 0 |
| Support to AROC II. | 1850 | 0 | 0 |
| Small Business Innovative Research/Small Business Technology Transfer Programs. | 0 | 916 | 0 |
| Totals | 52852 | 33356 | 14688 |

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PROJECT

415

B. Other Program Funding Summary

| | FY 2003 | FY 2004 | FY 2005 | FY 2006 | FY 2007 | FY 2008 | FY 2009 | To Compl | Total Cost |
|--|---------|---------|---------|---------|---------|---------|---------|------------|------------|
| PE 0603619A, Project 606, Countermine/Barrier Advanced Dev | 9719 | 9764 | 11299 | 0 | 8254 | 39015 | 43453 | Continuing | Continuing |
| R68200, HSTAMIDS | 0 | 1766 | 6836 | 7093 | 7084 | 8156 | 7422 | Continuing | Continuing |
| OPA 3, R68101, GSTAMIDS Block 0 | 9334 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 17514 |
| OPA 3, R68102, GSTAMIDS FCS | 0 | 0 | 0 | 0 | 7375 | 21483 | 20779 | Continuing | Continuing |
| OPA 3, R68105 ESMC | 0 | 0 | 1981 | 2966 | 592 | 0 | 0 | 0 | 5539 |
| Ammo, E81400 ESMC | 0 | 0 | 0 | 3000 | 5000 | 19500 | 28700 | 0 | 56200 |
| OPA 3, S11500 ASTAMIDS | 0 | 0 | 0 | 0 | 0 | 11486 | 12290 | Continuing | Continuing |

C. Acquisition Strategy: The Explosive Standoff Minefield Detection Clearer (ESMC) competitively-selected Concept & Technology Development (CTD) contractor was awarded a sole source System Development & Demonstration (SDD) contract upon completion of CTD phase and MDA approval. ASTAMIDS competitively selected System Component Development contractor was awarded Cost Plus Incentive Fee (CPIF) System Development and Demonstration (SDD) contract upon completion of System Component Development phase and MDA approval. Sole source production contract with multiple options is anticipated for the successful SDD contractor.

With the advent of the Army's Future Force Transformation, the GSTAMIDS Program has been restructured to meet the countermine requirements for the Future Combat Systems (FCS). The FCS Operational Requirements Document (ORD), dated April 2003 identifies countermine requirements. The GSTAMIDS FCS will provide the Unit of Action (UA) a capability that can be used for mine detection, mine and lane marking, mine neutralization and interfaces with FCS host platform(s) and Command, Control, Communications, and Computers, Intelligence, Surveillance, and Reconnaissance (C4ISR) reporting during in-route countermine operations. GSTAMIDS FCS enters the SDD Phase in 1Q FY04 with MDA approval and competitively selected SDD contract. HSTAMIDS had two competing contractors at start of CTD phase. In FY99 one contractor was selected to continue extended CTD phase through SDD. The SDD contractor will be awarded a production contract with multiple options.

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|--|------------------------|------------------------------------|----------------|--------------|---|--------------|--------------------|--------------|--------------------|-----------------------|------------|--------------------------|
| BUDGET ACTIVITY 5 - System Development and Demonstration | | | | | PE NUMBER AND TITLE 0604808A - Landmine Warfare/Barrier - Eng Dev | | | | | PROJECT 415 | | |
| I. Product Development | Contract Method & Type | Performing Activity & Location | Total PYs Cost | FY 2003 Cost | FY 2003 Award Date | FY 2004 Cost | FY 2004 Award Date | FY 2005 Cost | FY 2005 Award Date | Cost To Complete | Total Cost | Target Value of Contract |
| a . GSTAMIDS Block 1 | C-CPFF | Quantum Magnetics San Diego, CA | 0 | 1725 | 1-2Q | 0 | | 0 | | 0 | 1725 | 1725 |
| b . GSTAMIDS FCS | C-CPFF | BAE Systems, Austin, TX | 0 | 75 | 1Q | 0 | | 0 | | 0 | 75 | 95 |
| c . GSTAMIDS FCS | TBD | TBD | 0 | 0 | | 13243 | 2Q | 10078 | 2Q | Continue | 23321 | Continue |
| d . GSTAMIDS Block 0 | C-CPFF | EG&G Systems Inc., Albuquerque, NM | 15015 | 1391 | 1-2Q | 0 | | 0 | | 0 | 16406 | 16161 |
| e . HSTAMIDS | C-CPIF | CY Terra Corporation, Orlando, FL | 12401 | 3375 | 2Q | 0 | | 0 | | 0 | 15776 | 17566 |
| f . ESMC | SS-CPIF | BAE Systems, Austin, TX | 19933 | 27294 | 1-2Q | 10451 | | 1613 | | 0 | 59291 | 54197 |
| g . AROC II | | | 0 | 1850 | | 0 | | 0 | | 0 | 1850 | 0 |
| | | | | | | | | | | | | |
| Subtotal: | | | 47349 | 35710 | | 23694 | | 11691 | | Continue | 118444 | Continue |

| ARMY RDT&E COST ANALYSIS(R3) | | | | | | | | | February 2004 | | | |
|--|------------------------|--------------------------------|----------------|--------------|---|--------------|--------------------|--------------|--------------------|-----------------------|------------|--------------------------|
| BUDGET ACTIVITY 5 - System Development and Demonstration | | | | | PE NUMBER AND TITLE 0604808A - Landmine Warfare/Barrier - Eng Dev | | | | | PROJECT 415 | | |
| II. Support Cost | Contract Method & Type | Performing Activity & Location | Total PYs Cost | FY 2003 Cost | FY 2003 Award Date | FY 2004 Cost | FY 2004 Award Date | FY 2005 Cost | FY 2005 Award Date | Cost To Complete | Total Cost | Target Value of Contract |
| a . Eng. support GSTAMIDS Blk 0 | MIPR | NVESD/ CECOM, Ft Belvoir, VA | 6743 | 85 | 1Q | 0 | | 0 | | 0 | 6828 | 6828 |
| b . Eng support GSTAMIDS Blk 0 | MIPR | Various OGAs | 6159 | 88 | 1Q | 0 | | 0 | | 0 | 6247 | 5250 |
| c . Eng Support GSTAMIDS Block 0 | Various | Various Contractors | 7722 | 131 | 1Q | 0 | | 0 | | 0 | 7853 | 7871 |
| d . GSTAMIDS Blk I/FCS | MIPR | Various OGAs | 0 | 812 | 1Q | 967 | 1Q | 700 | 1Q | Continue | 2479 | Continue |
| e . GSTAMIDS Support Blk I/FCS | MIPR | NVESD/CECOM, Ft Belvoir, VA | 0 | 1228 | 1Q | 1806 | 1Q | 800 | 1Q | Continue | 3834 | Continue |
| f . Support GSTAMIDS Blk 1/FCS | Various | Various Contractors | 0 | 591 | 1Q | 276 | 1Q | 400 | 1Q | Continue | 1267 | Continue |
| g . Eng Support HSTAMIDS | MIPR | NVESD/CECOM, Ft Belvoir, VA | 3162 | 1371 | 1Q | 0 | | 0 | | 0 | 4533 | 4533 |
| h . Support HSTAMIDS | Various | Various | 3519 | 848 | 1Q | 0 | | 0 | | 0 | 4367 | 4367 |
| i . ESMC (Mongoose) | MIPR | NVESD/CECOM, Ft Belvoir, VA | 1497 | 367 | 1Q | 390 | 1Q | 0 | | 0 | 2254 | 2189 |
| j . ESMC (Mongoose) | Various | Various | 3905 | 1825 | 1Q | 1069 | 1Q | 0 | | 0 | 6799 | 6492 |
| | | | | | | | | | | | | |

| ARMY RDT&E COST ANALYSIS(R3) | | | | | | | | | February 2004 | | | |
|---|------------------------------|-----------------------------------|-------------------|-----------------|--|-----------------|--------------------------|-----------------|--------------------------|---------------------|---------------|--------------------------------|
| BUDGET ACTIVITY 5 - System Development and Demonstration | | | | | PE NUMBER AND TITLE 0604808A - Landmine Warfare/Barrier - Eng Dev | | | | | PROJECT 415 | | |
| II. Support Cost (continued) | Contract Method & Type | Performing Activity & Location | Total PYs Cost | FY 2003 Cost | FY 2003 Award Date | FY 2004 Cost | FY 2004 Award Date | FY 2005 Cost | FY 2005 Award Date | Cost To Complete | Total Cost | Target Value of Contract |
| k . HSTAMIDS | | PEO Soldier Spt | 0 | 2849 | | 0 | | 0 | | 0 | 2849 | 0 |
| l . Tiger team for robotics | MIPR | PM- Soldier, Ft. Belvoir | 1000 | 0 | | 0 | | 0 | | 0 | 1000 | 0 |
| | | | | | | | | | | | | |
| Subtotal: | | | 33707 | 10195 | | 4508 | | 1900 | | Continue | 50310 | Continue |
| | | | | | | | | | | | | |
| III. Test and Evaluation | Contract Method & Type | Performing Activity & Location | Total PYs Cost | FY 2003 Cost | FY 2003 Award Date | FY 2004 Cost | FY 2004 Award Date | FY 2005 Cost | FY 2005 Award Date | Cost To Complete | Total Cost | Target Value of Contract |
| a . Test support GSTAMIDS Blk 0 | MIPR | ATEC, Alexandria, VA | 3082 | 1287 | 2Q | 0 | | 0 | | 0 | 4369 | 4369 |
| b . Test support HSTAMIDS | MIPR | ATEC, Alexandria, VA | 1793 | 1066 | 1Q | 0 | | 0 | | 0 | 2859 | 2859 |
| c . Test Support ESMC | MIPR | ATEC, Alexandria, VA | 597 | 1201 | 1Q | 1075 | 1Q | 0 | | Continue | 2873 | 3763 |
| d . Test support GSTAMIDS Blk 1/FCS | MIPR | ATEC, Alexandria, VA | 0 | 40 | 2Q | 40 | 2Q | 200 | 2Q | 0 | 280 | 394 |
| | | | | | | | | | | | | |
| Subtotal: | | | 5472 | 3594 | | 1115 | | 200 | | Continue | 10381 | 11385 |
| | | | | | | | | | | | | |

| ARMY RDT&E COST ANALYSIS(R3) | | | | | | | | | February 2004 | | | |
|--|------------------------|--------------------------------|----------------|--------------|---|--------------|--------------------|--------------|--------------------|-----------------------|------------|--------------------------|
| BUDGET ACTIVITY 5 - System Development and Demonstration | | | | | PE NUMBER AND TITLE 0604808A - Landmine Warfare/Barrier - Eng Dev | | | | | PROJECT 415 | | |
| IV. Management Services | Contract Method & Type | Performing Activity & Location | Total PYs Cost | FY 2003 Cost | FY 2003 Award Date | FY 2004 Cost | FY 2004 Award Date | FY 2005 Cost | FY 2005 Award Date | Cost To Complete | Total Cost | Target Value of Contract |
| a . Program management | In-House | PM-CCS, Picatinny Arsenal, NJ | 2799 | 1495 | 1-4Q | 1466 | 1-4Q | 449 | 1-4Q | Continue | 6209 | Continue |
| b . Program management Contractor support | Various | Various | 2737 | 1858 | 1-4Q | 2573 | 1-4Q | 448 | 1-4Q | Continue | 7616 | Continue |
| | | | | | | | | | | | | |
| Subtotal: | | | 5536 | 3353 | | 4039 | | 897 | | Continue | 13825 | Continue |
| | | | | | | | | | | | | |
| Project Total Cost: | | | 92064 | 52852 | | 33356 | | 14688 | | Continue | 192960 | Continue |
| | | | | | | | | | | | | |

| Schedule Detail (R4a Exhibit) | | | | | | February 2004 | |
|--|---------|---------|---|---------|---------|-----------------------|---------|
| BUDGET ACTIVITY 5 - System Development and Demonstration | | | PE NUMBER AND TITLE 0604808A - Landmine Warfare/Barrier - Eng Dev | | | PROJECT 415 | |
| <u>Schedule Detail</u> | FY 2003 | FY 2004 | FY 2005 | FY 2006 | FY 2007 | FY 2008 | FY 2009 |
| GSTAMIDS Block 0 MS C | | 2Q | | | | | |
| GSTAMIDS FCS MS B | 4Q | | | | | | |
| GSTAMIDS FCS MS C | | | | | | | 2Q |
| HSTAMIDS MS C | | 1Q | | | | | |
| ESMC MS B | | | | | | | |
| ESMC (BCT) MS C | | | 2Q | | | | |

| | |
|--|----------------------|
| ARMY RDT&E BUDGET ITEM JUSTIFICATION (R-2A Exhibit) | February 2004 |
|--|----------------------|

| | | |
|--|---|-----------------------|
| BUDGET ACTIVITY 5 - System Development and Demonstration | PE NUMBER AND TITLE 0604808A - Landmine Warfare/Barrier - Eng Dev | PROJECT 434 |
|--|---|-----------------------|

| COST (In Thousands) | FY 2003 Actual | FY 2004 Estimate | FY 2005 Estimate | FY 2006 Estimate | FY 2007 Estimate | FY 2008 Estimate | FY 2009 Estimate | Cost to Complete | Total Cost |
|--|-------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|------------|
| 434 ANTI-PERSONNEL LANDMINE ALTERNATIVES (NSD) | 27042 | 22289 | 7248 | 0 | 0 | 0 | 0 | 0 | 93781 |

A. Mission Description and Budget Item Justification: This program provides for development of alternative systems for Non Self-Destruct (NSD) Anti-Personnel Landmines (APLs), particularly in Korea. The Non Self-Destruct Anti-Personnel Landmine program, also known as the Spider program, provides for force protection, assured mobility and battle space shaping without leaving a residual battlefield hazard after cessation of hostilities. This System supports the Future Force transition path of the Transformation Campaign Plan (TCP).

| <u>Accomplishments/Planned Program</u> | FY 2003 | FY 2004 | FY 2005 |
|--|--------------|--------------|-------------|
| Contractor team design/development for SD&D Phase. | 22387 | 11120 | 3000 |
| Provide general engineering support, program management and risk reduction efforts for SD&D. | 3910 | 6378 | 3000 |
| Perform modeling and simulation. | 240 | 240 | 150 |
| Government test and evaluation facility and facility support activities. | 505 | 3904 | 1098 |
| Small Business Innovative Research/Small Business Technology Transfer Programs | 0 | 647 | 0 |
| Totals | 27042 | 22289 | 7248 |

ARMY RDT&E BUDGET ITEM JUSTIFICATION (R-2A Exhibit)

February 2004

BUDGET ACTIVITY

5 - System Development and Demonstration

PE NUMBER AND TITLE

0604808A - Landmine Warfare/Barrier - Eng Dev

PROJECT

434

B. Other Program Funding Summary

| FY 2003 | FY 2004 | FY 2005 | FY 2006 | FY 2007 | FY 2008 | FY 2009 | To Compl | Total Cost |
|---------|---------|---------|---------|---------|---------|---------|----------|------------|
|---------|---------|---------|---------|---------|---------|---------|----------|------------|

PAA E91700 - Anti-Personnel Landmine Alternatives

| | | | | | | | | |
|---|---|-------|-------|--------|--------|--------|---|--------|
| 0 | 0 | 15222 | 33710 | 111666 | 112492 | 116886 | 0 | 389976 |
|---|---|-------|-------|--------|--------|--------|---|--------|

C. Acquisition Strategy:USD(AT&L)) approved the NSD-A plan to have Alliant Tech Systems and Textron Systems Corporation form a joint venture for the System Development & Demonstration (SDD) and Production & Deployment (P&D) efforts of this program. SDD contract was awarded September 2002. The SDD phase is a 33-month development effort culminating with Milestone C scheduled for June 2005. The first production unit is scheduled for March 2007 with IOC in 2008. The Spider program is now in the 17th month of its SDD phase.

| ARMY RDT&E COST ANALYSIS(R3) | | | | | | | | | February 2004 | | | |
|--|------------------------|--|----------------|--------------|---|--------------|--------------------|--------------|--------------------|-----------------------|------------|--------------------------|
| BUDGET ACTIVITY 5 - System Development and Demonstration | | | | | PE NUMBER AND TITLE 0604808A - Landmine Warfare/Barrier - Eng Dev | | | | | PROJECT 434 | | |
| I. Product Development | Contract Method & Type | Performing Activity & Location | Total PYs Cost | FY 2003 Cost | FY 2003 Award Date | FY 2004 Cost | FY 2004 Award Date | FY 2005 Cost | FY 2005 Award Date | Cost To Complete | Total Cost | Target Value of Contract |
| a . NSD-A SDD | C-CPIF | Alliant Tech Systems, Plymouth, MN/TEXTRON, Wilmington, MA | 15870 | 22387 | 2-3Q | 11767 | 2Q | 2561 | 1Q | 0 | 52585 | 54662 |
| | | | | | | | | | | | | |
| Subtotal: | | | 15870 | 22387 | | 11767 | | 2561 | | 0 | 52585 | 54662 |
| | | | | | | | | | | | | |
| II. Support Cost | Contract Method & Type | Performing Activity & Location | Total PYs Cost | FY 2003 Cost | FY 2003 Award Date | FY 2004 Cost | FY 2004 Award Date | FY 2005 Cost | FY 2005 Award Date | Cost To Complete | Total Cost | Target Value of Contract |
| a . Eng support NSD-A | MIPR | TACOM/ARDEC, Picatinny Arsenal, NJ | 3260 | 2024 | 2Q | 3220 | 2Q | 1202 | 2Q | 0 | 9706 | 7615 |
| b . Eng support NSD-A | MIPR | Various | 1908 | 711 | 2Q | 1482 | 2Q | 996 | 2Q | 0 | 5097 | 5114 |
| c . Engr Support | Various | BRTRC, CORBETT, MITRE, Various | 0 | 645 | 2-4Q | 1000 | 2Q | 856 | 2Q | 0 | 2501 | 2761 |
| | | | | | | | | | | | | |
| Subtotal: | | | 5168 | 3380 | | 5702 | | 3054 | | 0 | 17304 | 15490 |
| | | | | | | | | | | | | |

| ARMY RDT&E COST ANALYSIS(R3) | | | | | | | | | February 2004 | | | | |
|--|------------------------|--|----------------|--------------|---|--------------|--------------------|--------------|--------------------|------------------|------------|--------------------------|--|
| BUDGET ACTIVITY | | | | | PE NUMBER AND TITLE | | | | | PROJECT | | | |
| 5 - System Development and Demonstration | | | | | 0604808A - Landmine Warfare/Barrier - Eng Dev | | | | | 434 | | | |
| III. Test and Evaluation | Contract Method & Type | Performing Activity & Location | Total PYs Cost | FY 2003 Cost | FY 2003 Award Date | FY 2004 Cost | FY 2004 Award Date | FY 2005 Cost | FY 2005 Award Date | Cost To Complete | Total Cost | Target Value of Contract | |
| a . T&E | MIPR | Army Evaluation Center, MD, FT Benning, GA, YUMA, AZ | 2000 | 505 | 2Q | 3904 | 2Q | 1183 | 2Q | 0 | 7592 | 8892 | |
| Subtotal: | | | 2000 | 505 | | 3904 | | 1183 | | 0 | 7592 | 8892 | |
| Remarks: Not Applicable | | | | | | | | | | | | | |
| IV. Management Services | Contract Method & Type | Performing Activity & Location | Total PYs Cost | FY 2003 Cost | FY 2003 Award Date | FY 2004 Cost | FY 2004 Award Date | FY 2005 Cost | FY 2005 Award Date | Cost To Complete | Total Cost | Target Value of Contract | |
| a . Program Mgmt NSD-A | In-House | PM-CCS, Picatinny Arsenal, NJ | 456 | 770 | 1-4Q | 916 | 1-4Q | 450 | 2Q | 0 | 2592 | 4155 | |
| Subtotal: | | | 456 | 770 | | 916 | | 450 | | 0 | 2592 | 4155 | |
| Project Total Cost: | | | | | | | | | | | | | |
| | | | 23494 | 27042 | | 22289 | | 7248 | | 0 | 80073 | 83199 | |

| Schedule Profile (R4 Exhibit) | | | | | | | | | | | | | | | | | | | | | | | February 2004 | | | | | | | | | |
|--|-------|---|---|---|-------|---|---|---|-------|---|---|--|-------|---|---|---|-------|---|---|---|-------|---|---------------|---|-------|---|---|----------------|-------|--|--|--|
| BUDGET ACTIVITY 5 - System Development and Demonstration | | | | | | | | | | | | PE NUMBER AND TITLE 0604808A - Landmine Warfare/Barrier - Eng Dev | | | | | | | | | | | | | | | | PROJECT 434 | | | | |
| Event Name | FY 03 | | | | FY 04 | | | | FY 05 | | | | FY 06 | | | | FY 07 | | | | FY 08 | | | | FY 09 | | | | FY 10 | | | |
| | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | | | | |
| Non-Self Destruct Anti-personnel Landmine Alternatives (1) MS C Production Qualification Testing Initial Operation Test (2) Materiel Release (3) First Unit Equipped Initial Operation Capability | | | | | | | | | MSC | | | | | | | | | | | | MR | | | | FUE | | | | IOC | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

| Schedule Detail (R4a Exhibit) | | | | | | February 2004 | |
|--|----------------|----------------|---|----------------|----------------|-----------------------|----------------|
| BUDGET ACTIVITY 5 - System Development and Demonstration | | | PE NUMBER AND TITLE 0604808A - Landmine Warfare/Barrier - Eng Dev | | | PROJECT 434 | |
| <u>Schedule Detail</u> | <u>FY 2003</u> | <u>FY 2004</u> | <u>FY 2005</u> | <u>FY 2006</u> | <u>FY 2007</u> | <u>FY 2008</u> | <u>FY 2009</u> |
| NSD-A MS-C | | | 3Q | | | | |
| Production Qualification Test | | 3-4Q | 1Q | | | | |
| Initial Operational Test | | | 1Q | | | | |
| Material Release | | | | | 3Q | | |
| First Production Delivery | | | | | 2Q | | |
| Initial Operational Capability | | | | | | 4Q | |

| | | | | | | | | | |
|--|-------------------|---------------------|---------------------|---|---------------------|---------------------|---------------------|-----------------------|------------|
| ARMY RDT&E BUDGET ITEM JUSTIFICATION (R-2A Exhibit) | | | | | | | February 2004 | | |
| BUDGET ACTIVITY 5 - System Development and Demonstration | | | | PE NUMBER AND TITLE 0604808A - Landmine Warfare/Barrier - Eng Dev | | | | PROJECT 443 | |
| COST (In Thousands) | FY 2003 Actual | FY 2004 Estimate | FY 2005 Estimate | FY 2006 Estimate | FY 2007 Estimate | FY 2008 Estimate | FY 2009 Estimate | Cost to Complete | Total Cost |
| 443 APL-A (MIXED SYSTEMS) | 8177 | 31144 | 0 | 0 | 0 | 0 | 0 | 0 | 75738 |
| <p><u>A. Mission Description and Budget Item Justification:</u> This project was to provide alternatives to the anti-personnel submunitions used within mixed anti-tank (AT)/anti-personnel (AP)munition systems or the entire mixed AT/AP system. Alternative systems were to include but were not limited to surveillance, command and control, remote control, remote delivery, and overwatch effects that will be developed and evaluated in parallel assuring an equivalent or enhanced capability to that currently provided by mixed AT/AP systems. The Intelligent Munition System program forms the backbone of future controllable and integrated mine systems that will shape the development of landmine alternatives, will address mixed system requirements as part of its spiral development. Beginning in FY 05, funding for this effort has transitioned to Project 016 within this Program Element.</p> | | | | | | | | | |
| <u>Accomplishments/Planned Program</u> | | | | | | FY 2003 | FY 2004 | FY 2005 | |
| To support Presidential Decision Directive on landmine policy which is expected in future. Funds are predominantly for Component Advanced Development / risk studies. | | | | | | 7694 | 29539 | 0 | |
| Provide general engineering support and program management. | | | | | | 483 | 200 | 0 | |
| APLA risk reduction efforts. | | | | | | 0 | 500 | 0 | |
| Small Business Innovative Research/Small Business Technology Transfer Programs. | | | | | | 0 | 905 | 0 | |
| Totals | | | | | | 8177 | 31144 | 0 | |

ARMY RDT&E BUDGET ITEM JUSTIFICATION (R-2A Exhibit)

February 2004

BUDGET ACTIVITY

5 - System Development and Demonstration

PE NUMBER AND TITLE

0604808A - Landmine Warfare/Barrier - Eng Dev

PROJECT

443

B. Other Program Funding Summary

| FY 2003 | FY 2004 | FY 2005 | FY 2006 | FY 2007 | FY 2008 | FY 2009 | To Compl | Total Cost |
|---------|---------|---------|---------|---------|---------|---------|----------|------------|
| 36953 | 9398 | 29109 | 42430 | 53632 | 45887 | 35891 | 0 | 253300 |

64802/D016 Close Combat Capabilities
Engineering Development

C. Acquisition Strategy: The Department of Defense is consolidating the Anti-Personnel Landmine Alternative (Mixed System) program (Track III) with development of the Intelligent Munition System to achieve future force requirements. The Intelligent Munition System program forms the backbone of future controllable and integrated mine systems that will shape the development of landmine alternatives, will address mixed system requirement as part of its spiral development.

| ARMY RDT&E COST ANALYSIS(R3) | | | | | | | | | February 2004 | | | |
|--|------------------------|--|----------------|--------------|---|--------------|--------------------|--------------|--------------------|------------------|------------|--------------------------|
| BUDGET ACTIVITY | | | | | PE NUMBER AND TITLE | | | | | PROJECT | | |
| 5 - System Development and Demonstration | | | | | 0604808A - Landmine Warfare/Barrier - Eng Dev | | | | | 443 | | |
| I. Product Development | Contract Method & Type | Performing Activity & Location | Total PYs Cost | FY 2003 Cost | FY 2003 Award Date | FY 2004 Cost | FY 2004 Award Date | FY 2005 Cost | FY 2005 Award Date | Cost To Complete | Total Cost | Target Value of Contract |
| a . APL-A Component Advanced Development | C-CPIF | Textron Systems, Wilmington, MA; and BAE Sys., Austin , TX | 6223 | 0 | | 0 | | 0 | | 0 | 6223 | 70528 |
| b . APL-A Component Technology Development | C-CPIF | Various contractors | 1487 | 0 | | 0 | | 0 | | 0 | 1487 | 4987 |
| c . APL-A Support | | Various contractors | 4830 | 0 | | 0 | | 0 | | 0 | 4830 | 11030 |
| d . APL-A UMCS | MIPR | CECOM, Ft. Monmouth | 700 | 0 | | 0 | | 0 | | 0 | 700 | 3325 |
| e . APL-A System Concept Exploriation | C-CPIF | Various contractors | 9311 | 0 | | 0 | | 0 | | 0 | 9311 | 6223 |
| f . Landmine Alternative Development | TBD | TBD | 0 | 7694 | | 30444 | | 0 | | 0 | 38138 | 0 |
| | | | | | | | | | | | | |
| Subtotal: | | | 22551 | 7694 | | 30444 | | 0 | | 0 | 60689 | 96093 |
| | | | | | | | | | | | | |

| ARMY RDT&E COST ANALYSIS(R3) | | | | | | | | | February 2004 | | | |
|--|------------------------|------------------------------------|----------------|--------------|---|--------------|--------------------|--------------|--------------------|-----------------------|------------|--------------------------|
| BUDGET ACTIVITY 5 - System Development and Demonstration | | | | | PE NUMBER AND TITLE 0604808A - Landmine Warfare/Barrier - Eng Dev | | | | | PROJECT 443 | | |
| II. Support Cost | Contract Method & Type | Performing Activity & Location | Total PYs Cost | FY 2003 Cost | FY 2003 Award Date | FY 2004 Cost | FY 2004 Award Date | FY 2005 Cost | FY 2005 Award Date | Cost To Complete | Total Cost | Target Value of Contract |
| a . Engineering Support | MIPR | TACOM/ARDEC, Picatinny Arsenal, NJ | 3456 | 283 | 2-4Q | 700 | 1Q | 0 | | 0 | 4439 | 8172 |
| b . Engineering Support | MIPR | Various | 1237 | 0 | 2-4Q | 0 | | 0 | | 0 | 1237 | 2687 |
| c . Concepts & Component Analysis & Evaluation | MIPR | Various | 8251 | 0 | 2-4Q | 0 | | 0 | | 0 | 8251 | 13051 |
| | | | | | | | | | | | | |
| Subtotal: | | | 12944 | 283 | | 700 | | 0 | | 0 | 13927 | 23910 |
| | | | | | | | | | | | | |
| III. Test and Evaluation | Contract Method & Type | Performing Activity & Location | Total PYs Cost | FY 2003 Cost | FY 2003 Award Date | FY 2004 Cost | FY 2004 Award Date | FY 2005 Cost | FY 2005 Award Date | Cost To Complete | Total Cost | Target Value of Contract |
| a . T&E Support | MIPR | Army Evaluation Center, MD | 1210 | 0 | 2-4Q | 0 | | 0 | | 0 | 1210 | 1885 |
| | | | | | | | | | | | | |
| Subtotal: | | | 1210 | 0 | | 0 | | 0 | | 0 | 1210 | 1885 |
| | | | | | | | | | | | | |

| ARMY RDT&E COST ANALYSIS(R3) | | | | | | | | | | February 2004 | | |
|--|------------------------|--------------------------------|----------------|--------------|---|--------------|--------------------|--------------|--------------------|------------------|------------|--------------------------|
| BUDGET ACTIVITY | | | | | PE NUMBER AND TITLE | | | | | PROJECT | | |
| 5 - System Development and Demonstration | | | | | 0604808A - Landmine Warfare/Barrier - Eng Dev | | | | | 443 | | |
| IV. Management Services | Contract Method & Type | Performing Activity & Location | Total PYs Cost | FY 2003 Cost | FY 2003 Award Date | FY 2004 Cost | FY 2004 Award Date | FY 2005 Cost | FY 2005 Award Date | Cost To Complete | Total Cost | Target Value of Contract |
| a . Program Management | MIPR | PM-CCS. Picatinny Arsenal, NJ | 1210 | 200 | 2-4Q | 0 | | 0 | | 0 | 1410 | 2760 |
| | | | | | | | | | | | | |
| Subtotal: | | | 1210 | 200 | | 0 | | 0 | | 0 | 1410 | 2760 |
| | | | | | | | | | | | | |
| Project Total Cost: | | | 37915 | 8177 | | 31144 | | 0 | | 0 | 77236 | 124648 |
| | | | | | | | | | | | | |

| Schedule Profile (R4 Exhibit) | | | | | | | | | | | | | | | | | | | | | | | February 2004 | | | | | | | | | | | | | | |
|---|--|-------|---|---|---|-------|---|---|---|-------|---|--|---|--------|---|---|---|-------|---|---|---|--------|---------------|---|---|-------|---|----------------|---|-------|--|--|--|--|--|--|--|
| BUDGET ACTIVITY 5 - System Development and Demonstration | | | | | | | | | | | | PE NUMBER AND TITLE 0604808A - Landmine Warfare/Barrier - Eng Dev | | | | | | | | | | | | | | | | PROJECT 443 | | | | | | | | | |
| Event Name | | FY 03 | | | | FY 04 | | | | FY 05 | | | | FY 06 | | | | FY 07 | | | | FY 08 | | | | FY 09 | | | | FY 10 | | | | | | | |
| | | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | | | | | | | | |
| Anti-personnel Landmine Alternatives | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| (1) MS B | | | | | | | | | | | | | | 1 MS B | | | | | | | | | | | | | | | | | | | | | | | |
| (2) MS C | | | | | | | | | | | | | | | | | | | | | | 2 MS C | | | | | | | | | | | | | | | |

| Schedule Detail (R4a Exhibit) | | February 2004 |
|---|---|-----------------------|
| BUDGET ACTIVITY 5 - System Development and Demonstration | PE NUMBER AND TITLE 0604808A - Landmine Warfare/Barrier - Eng Dev | PROJECT 443 |
| <p><u>Schedule Detail:</u> Not applicable for this item.</p> | | |